

1 REMARKS

2 In an earlier Office Action, dated October 20, 2003, the Examiner identified two
3 distinct inventions, identified as Group I (claims 1-43) and Group II (claims 44-56) and required
4 restriction of the examination of the present patent to one set of claims. In a response filed December
5 18, 2003, the Applicants responded by selecting Group I for examination. In the present Office
6 Action, the Examiner rejected claims 1-3, 10, 11, 13, 15-19, 32, 33, 35 and 37 under 35 U.S.C. §
7 103(a) as being unpatentable over Peters (U.S. Patent No. 2,842,155) in view of Weber (U.S. Patent
8 No. 5,606,987), rejected claims 4-6 and 9 under 35 U.S.C. § 103(a) as being unpatentable over the
9 admitted prior art of Applicants' FIG. 2 and rejected claim 8 under 35 U.S.C. § 103(a) as being
10 unpatentable over the art as applied to claim 1 in view of Binnall, et al. (U.S. Patent No. 2,507,954).
11 In response, the Applicants hereby submit arguments and the declaration of Dale Kempf (the "Kempf
12 Decl.") in opposition to the Examiner's rejection and in support of the patentability of the present
13 claims, amends claim 8 and submits new claims 57-68 . As set forth in more detail below, the
14 Applicants believe the arguments and amendments made in response to the Examiner's rejections have
15 placed the application in condition for allowance.

16
17 Kempf Declaration

18 Submitted with this Response/Amendment is the declaration of Dale Kempf. As set
19 forth in therein, Mr. Kempf is a co-inventor of the present patent application and is a professional
20 engineer in mechanical engineering who has significant experience with fluid related devices. (Kempf
21 Decl. ¶¶ 1-4.) Mr. Kempf was one of the co-inventors of Patent Application No. 09/697,520 filed
22 October 25, 2000, now U.S. Patent No. 6,536,469 issued March 25, 3003, which the present patent
23 application is a CIP and the disclosure of which was incorporated into the present patent application.
24 (Kempf Decl. ¶ 4.) Mr. Kempf has reviewed the recent Office Action and the patents cited by the
25 Examiner therein. (Kempf Decl. ¶ 5.)

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2 Claims 1-3, 10, 11, 13, 15-19, 32, 33, 35 and 37

3 With regard to the obviousness rejections for Applicants' claims 1-3, 10, 11, 13, 15-
4 19, 32, 33, 35 and 37, which are also based on Peters in view of Weber, Section 103(a) only denies
5 patentability to those inventions whose "subject matter as a whole would have been obvious at the
6 time the invention was made to a person having ordinary skill in the art to which said subject matter
7 pertains." (35 U.S.C. § 103.) Initially, Applicants' believe that the teachings from Peters and
8 Weber are not reasonably pertinent to the problems solved by Applicants' invention. (See In re Clay,
9 23 USPQ2d 1058, 1060 (CAFC 1992); Kempf Decl. ¶¶ 6-8.) Applicants' invention comprises a
10 thermostatically controlled bypass valve disposed inside the structure of a water control valve so as to
11 bypass cold or tepid water in the pressurized hot water line to the cold water line until the water in the
12 hot water line is at the desired temperature so as to maintain hot water at the hot water faucet and
13 avoid the waste of water associated with having to run water from the hot water line to the drain until
14 the "hot" water reaches the desired temperature. (Kempf Decl. ¶ 6.) Peters describes a
15 thermostatically controlled water bypass valve that is disposed between the hot and cold water lines
16 external to the water control valve. (Kempf Decl. ¶ 7.). As such, the bypass valve in Peters is a
17 separate component that interconnects the hot and cold water lines before the hot water gets to the
18 water control valve. (Id.) As best shown in Figures 1 and 2 of Peters, the external bypass valve
19 requires new connections in the water system in order to take advantage of the bypass operation. (Id.)
20 As indicated in the Peters patent, with an issue date of July 8, 1958, the technology associated with
21 thermostatically controlled water bypass valves external to the water control valve has been known in
22 the industry for many years. (Id.) The Weber patent discloses an apparatus configured to reduce the
23 waste of hot water associated with leaking hot water valves that causes the hot water faucet to dribble
24 hot water. (Kempf Decl. ¶ 8.) As set forth a column 5, line 34 to column 6, line 45, Weber solves
25 the problem of a leaking/dribbling hot water control valves by placing a pressure responsive check
26 valve 188-1 before the hot water control valve 186-1 and a small pipe 194 (also shown in the figures

1 as 193) interconnecting the cold water line 102-2 before the cold water control valve 182-1 with the
2 hot water line 120-2 between the check valve 188-1 and hot water control valve 186-1, as best shown
3 in Figure 2 of Weber. (Id.) As shown in Figure 4, the dribble bypass valve of Weber functions when
4 both the cold water control valve 182-1 and hot water control valve 186-1 are turned off and hot
5 water is leaking out of hot water control valve 186-1. (Id.) Under this condition, cold water flows
6 through line 193/194 such that the differential pressure across the pressure responsive check valve
7 184-2 is equalized, causing the check valve 184-2 to remain closed, thereby dribbling cold water out
8 of hot water control valve 186-1 instead of hot water. (Id.) As with any water supply system, hot
9 water backed up at check valve 184-2 will become tepid or cold over time as it sits in the hot water
10 line 120-2. (Id.)

11 Although Peters generally pertains to a thermostatically controlled bypass valve in a
12 system having both cold and hot water control valves, the bypassing operation is not incorporated into
13 the water control valve, as is accomplished by Applicants' invention, and as such is not directly
14 related to Applicants' invention. Even more importantly, the invention of Weber is not related to
15 Applicants' invention. As set forth above and in the Weber patent, the method and apparatus of
16 Weber does not accomplish the objectives of Applicants' patent. The problem solved by Applicants'
17 invention is the availability of hot, as opposed to cold or tepid, water at the hot water control valve
18 when the hot water control valve is opened. As is well known, as set forth in Applicants' patent,
19 many people are required to open the hot water control valve for some period of time and drain "hot"
20 water from the faucet down the drain in order to obtain actual hot water at the faucet for the desired
21 use (i.e., washing hands or dishes). Weber does nothing to solve this problem. Like a water system
22 without the Weber apparatus, hot water backs up in the hot water line, often for extended periods of
23 time, where it cools off, becoming tepid or cold. (Kempf Decl. ¶ 8.) When the user desires hot water
24 at the faucet, he or she will still be required to open the hot water control valve and let cold or tepid
25 water run down the drain until it reaches the desired temperature. (Kempf Decl. ¶ 10.) Naturally, the
26 waste of water associated with draining away good water and the waste of energy associated with

1 heating up water only to let it cool in the hot water line is not prevented. (Id.) Because the subject
2 matter and purpose of Applicants' invention is different than the subject and purpose of the inventions
3 in Peters and, more particularly, Weber, an inventor would not have been motivated to look to or
4 consider these patents in attempting to solve the problems solved by Applicants' invention. (See In re
5 Clay, 23 USPQ2d at 1061; Kempf Decl. ¶¶ 9 & 11.) As a result, a person having ordinary skill in the
6 art would not apply the teachings of Peters and Weber to arrive at Applicants' invention and nothing
7 in Peters or Weber suggests such an application, particularly in light of the differences between these
8 patents and Applicants' invention. (Kempf Decl. ¶ 9.)

9 Even if the Peters and Weber references are analogous art, respectfully, nothing
10 suggests combining the teachings of Weber with Peters, in any combination suggested by the
11 Examiner, to arrive at Applicants' invention. (Kempf Decl. ¶ 9.) As stated by the court in In re
12 Geiger, 2 USPQ2d 1276 (CAFC 1987), "[o]bviousness cannot be established by combining the
13 teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or
14 incentive supporting the combination." (In re Geiger, 2 USPQ2d at 1278.) The motivation or
15 suggestion to combine references must exist, otherwise the determination of obviousness involves
16 nothing more "than indiscriminately combining prior art." (Micro Chemical Inc. v. Great Plains
17 Chemical Co., 41 USPQ2d 1238, 1244 (CAFC 1997).) In In re Fritch, 23 USPQ2d 1780 (CAFC
18 1992), the Federal Circuit stated the following:

19 In proceedings before the Patent and Trademark Office, the Examiner bears the burden of
20 establishing a prima facie case of obviousness based upon the prior art. The Examiner can
21 satisfy this burden only by showing some objective teaching in the prior art or that knowledge
generally available to one of ordinary skill in the art would lead that individual to combine the
relevant teachings of the references.

22 Obviousness cannot be established by combining the teachings of the prior art to produce the
23 claimed invention, absent some teaching or suggestion supporting the combination. Under
24 section 103, teachings of references can be combined *only* if there is some suggestion or
25 incentive to do so. Although couched in terms of combining teachings found in the prior art,
26 the same inquiry must be carried out in the context of a purported obvious "modification" of
the prior art. The mere fact that the prior art may be modified in the manner suggested by the
Examiner does not make the modification obvious unless the prior art suggested the
desirability of the modification.

1 Here, the Examiner relied upon hindsight to arrive at the determination of obviousness. It is
2 impermissible to use the claimed invention as an instruction manual or "template" to piece
3 together the teachings of the prior art so that the claimed invention is rendered obvious. This
4 court has previously stated that one cannot use hindsight reconstruction to pick and choose
5 among isolated disclosures in the prior art to deprecate the claimed invention. (In re Fritch,
6 23 USPQ2d at 1783-84 (internal quotes and citations removed).)

7 Respectfully, nothing in either the Peters or Weber references or any knowledge
8 generally available to one of ordinary skill in the art compels, teaches, suggests or even offers any
9 incentive such that an individual wanting to invent a water control valve for bypassing cold or tepid
10 water from the hot water line so as to maintain actual hot water at the hot water control valve in the
11 manner of Applicants' invention would combine the teachings from Weber with Peters, as suggested
12 by the Examiner. (See In re Fritch, 23 USPQ2d at 1783; In re Geiger, 2 USPQ2d at 1278; (Kempf
13 Decl. ¶ 9.) In particular, a person wanting to solve the problem solved by Applicants' invention (i.e.,
14 availability of true hot water at the hot water control valve) would not look to a reference directed at a
15 device that directs cold water from the cold water line to the hot water control valve so as to close the
16 hot water line and dribble cold water through the hot water control valve instead of hot water. (Kempf
17 Decl. ¶¶ 9-11.) In fact, the Weber apparatus has the opposite effect of that intended by Applicants'
18 invention. (Kempf Decl. ¶ 10.) When the hot water control valve is leaking/dribbling water from hot
19 water control valve, the condition identified as in existence before the Weber apparatus, it is more
20 likely that true hot water will be available at the control valve when it is opened than by placing a
21 check valve to close the hot water line and allow the hot water therein to cool off and become cold or
22 tepid, as Weber's apparatus is configured to do. (Id.) In addition, the bypassing of the Weber
23 apparatus is opposite of Applicants' invention, in that cold water flows from the cold water line to the
24 hot water control valve in Weber instead of "hot" water (in its cooled or tepid state) flowing from the
25 pressurized hot water line to the cold water line for recycling in the water system. (Kempf Decl. ¶¶ 6
26 & 8.) Unlike Applicant's invention, the Weber apparatus is configured to be independent of
27 temperature. (Kempf Decl. ¶ 10.) The apparatus in Weber could be utilized for a system having no
hot water line, just some other line from which the user desires to avoid leaking/dribbling fluid. As a

1 result, Peters and Weber do not teach, suggest or even relate to a solution to the problem addressed
2 by the Applicants' invention. Nothing in either the Peters or Weber patents suggest, compel or offer
3 any incentive to place a thermostatically controlled bypass valve inside a water control valve so as to
4 maintain hot water ready at the hot water control valve. (Kempf Decl. ¶¶ 9 & 11.) In fact,
5 presumably the inventor in the Weber patent, which issued in 1997, was familiar with the Peters
6 patent as it was cited as a reference.

7 The Examiner appears to create a water control fixture having a thermostatically
8 controlled bypass valve such as Applicants' from the external thermostatically bypass valve of Peters
9 and the hot water bypass dribble apparatus of Weber. In the Office Action, the Examiner states that
10 "[I]n order to obtain a unitary easily installed unit it would have been obvious to make Peter's
11 arrangements into a unitary fixture." Respectfully, Applicants disagree with the Examiner's
12 conclusion. (Kempf Decl. ¶ 9.) Viewing the Peters and Weber references and determining that it
13 would have been obvious to combine them to achieve Applicants' invention may be an application of
14 impermissible hindsight to arrive at the determination of obviousness. (See In re Fritch, 23 USPQ2d
15 at 1784.)

16 In addition to the foregoing, Applicants' invention involves more than merely placing
17 the bypass valve of Peters into the anti-hot water dribbling system of Weber. Neither Peters nor
18 Weber disclose, reference or relate to a water control fixture having an internal thermostatically
19 controlled bypass valve. Even in Weber, the bypassing operation is actually external to the water
20 control valves (much like it is in Peters) because it interconnects the water lines to each other before
21 either line connects to their respective water control valves (as shown in Figure 2 of Weber). (Kempf
22 Decl. ¶ 9.) Instead of the bypass valve being inside the water control valve, as with Applicants'
23 invention, the bypassing of Weber is positioned outside the valve, only above the sink instead of
24 below the sink as in Peters. (Id.) The reference at column 5, lines 34-39 to incorporating the anti-
25 dribble control device in the structure of a set of faucets is not, as shown by the referenced Figure 2,
26 the same as incorporating the bypassing operation inside the water control valve. (Id.) Instead, the

bypass line of Weber is still located external to the water control valves and nothing in Weber (or Peters) suggests, compels or offers any incentive to place the bypassing operation, particularly thermostatically controlled bypass operations, inside the water control valve. (Id.) As a result, even if the thermostatically controlled bypass valve of Peters was combined with the anti-dribble apparatus of Weber (which there is no suggestion to do), the bypass valve would merely be located in the pipe 193/194 external to the water control valve and not inside the water control valve as with Applicants' invention.

Claims 4-6 and 9

With regard to the obviousness rejection of claims 4-6 and 9, the Applicants respectfully disagree with the Examiner with regard to this rejection. Initially, as stated above, Applicants believe claim 1 is allowable over the prior art, thereby making claims 4-6 and 9 allowable over the prior art. In addition, Applicants' do not believe that the prior art discloses commercially known thermal actuators used as the actuating element in a thermostatically controlled bypass valve disposed inside a water control valve having the elements of claims 4, 5 and 9. Further, Applicants do not believe that a wax-filled cartridge actuator has been used as the actuating element in a thermostatically controlled bypass valve disposed inside a water control valve of claim 6, nor would it have been obvious to utilize the elements of claims 4-6 and 9 for such a water control valve.

Claim 8

With regard to claim 8, the Examiner takes the position that this claim is unpatentable over the art as applied to claim 1 in view of Binnall. Initially, as stated above, Applicants believe claim 1 is allowable over the prior art, thereby making claim 8 allowable over the prior art. In addition, Applicants are amending claim 8 to clarify that the screens are configured to be self-cleaning so as to avoid being clogged with detritus and other trash, as set forth in the specification at page 30, lines 3-6 in reference to Figure 11 of Applicants' patent application. As set forth in the specification,

1 screens 129 are positioned inside the hot water inlet port 118 so as to be self-cleaning, meaning that
2 they are positioned in the water control valve such that their surfaces are swept clean each time the
3 hot water faucet is turned on (i.e., no bypassing of hot water). This contrasts to the screen 25 of
4 Binnall which is placed directly in the flow channel of the inlet so as to receive the direct flow of the
5 incoming fluid. (Kempf Decl. ¶ 12.) The configuration of a screen as set forth in Binnall is not
6 practical or advisable for Applicants' invention, as a screen placed directly in the flow of fluid (as is
7 Binnall) will become clogged with the detritus or other trash carried by the fluid, requiring it to be
8 removed for cleaning or replacement. (Id.) Because the bypass valve of Applicants' invention is
9 disposed inside the water control valve, it is important that the screen be self-cleaning so as to avoid
10 clogging of the screen openings. Applicants believe that this configuration for a screen disposed
11 inside the hot water inlet of the water control valve having an internal thermostatically controlled
12 bypass valve is not obvious in light of the prior art. (Id.)

13
14 Claims 57-58

15 Applicants are adding new claims 57-68. Claim 57 is the same as claim 32 with the
16 addition of the self-cleaning screen discussed above. Claims 58-68 are the same as claims 33-44,
17 except ultimately dependent on independent claim 57 instead of independent claim 32. As set forth
18 above, these claims are believed to be allowable in light of the prior art.

19 In light of the above arguments, Applicant respectfully requests the Examiner to
20 withdraw the rejection of the claims set forth in the subject patent application.

21 The original application included three independent claims and fifty-six total claims. A
22 total of thirteen claims, including one independent claim, were cancelled (claims 44-56) and a total of
23 twelve claims (claims 57-68), including one independent claim, were added. Therefore, after this
24 amendment, there will be three independent claims and a total of fifty-five claims. As a result, no
25 additional fees for claims are believed due.

1 In view of the foregoing, it is submitted that this application is in condition for
2 allowance. Reconsideration of the rejections and objections in light of this Amendment is requested.
3 Allowance of Claims 1-43 and 57-68 are solicited.

4 Dated: March 27, 2004.

5 Respectfully Submitted,

6
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